WHAT IS CLAIMED IS:

1. A data transfer control device for controlling transfer of information data to a receiving node connected with a first physical network from a transmitting node connected with a second physical network, the data transfer control device being connected with the second physical network and comprising:

an establishing unit for establishing a channel in the second physical network for transmitting the information data;

a reserving unit for reserving a communication path for transferring the information data transmitted through said channel to another data transfer control device belonging to the first physical network and/or the receiving node; and

a commanding unit for commanding the transmitting node to transmit the information data through said channel, by using a protocol depending on the second physical network.

2. The device of claim 1, wherein the receiving unit transmits a control message commanding a network connection device which connects the second physical network and a third physical network, to register a correspondence between the channel in the second physical network and a header/channel information depending on the third physical network.

3. The device of claim 1, wherein the reserving unit transmits a control message containing an address information for said another data transfer control device and/or the receiving node and at least one of a header information to be attached to the information data and an information regarding a channel through which the information data is to be transferred, to said another data

transfer control device and/or the receiving node.

4. The device of claim 3, further comprising:

an interface unit for connecting the data transfer control device to a third physical network or the first physical network; and

a transmission unit for transmitting the information data received through said channel in the second physical network to the third physical network or the first physical network, onto a channel indicated by said control message, or after attaching the header information contained in said control message.

5. The device of claim 3, further comprising:

an interface unit for connecting the data transfer control device to a third physical network or the first physical network;

a conversion unit for converting a data format of data received through said channel, from a first data format depending on the second physical network to a second data format depending on the third physical network or the first physical network and/or an upper logical network of the third physical network or the first physical network; and

a transmission unit for transmitting said data with the data format converted by the conversion unit as the information data to the third physical network or the first physical network, onto a channel indicated by said control message, or after attaching the header information contained in said control message.

6. The device of claim 3, further comprising:

an encoding/decoding unit for encoding/decoding data received through said channel; and

a transmission unit for transmitting the information data encoded/decoded by the encoding/decoding unit, to a

channel indicated by said control message, or after attaching a header information contained in said control message.

7. The device of claim 1, wherein the establishing unit establishes said channel in a form of a broadcast type channel.

8. The device of claim 1, wherein the reserving unit communicates an information regarding a communication resource required for the communication path, with said another data transfer control device and/or the receiving node.

9. The device of claim 1, further comprising:

a collecting unit for collecting attribute information of transmitting and/or receiving nodes connected with the second physical network; and

a notifying unit for notifying said attribute information to said another data transfer control device and/or the receiving node.

10. The device of claim 1, further comprising:

a receiving unit for receiving a notice regarding attribute information of transmitting and/or receiving nodes connected with the first physical network; and

a memory unit for storing said attribute information.

11. The device of claim 1, further comprising:

a receiving unit for receiving a control message containing an information capable of specifying the transmitting node, from said another data transfer control device and/or the receiving node;

wherein the commanding unit commands a transmission of the information data to the transmitting node which is

specified by said control message.

12. The device of claim 1, wherein the reserving unit transmits a control message containing an information capable of specifying the receiving node, to said another data transfer control device.

13. A data transfer control device for controlling transfer of information data to a receiving node connected with a first physical network from a transmitting node connected with a second physical network, the data transfer control device being connected with the first physical network and comprising:

a receiving unit for receiving a control message to be used in reserving a communication path reaching the data transfer control device, said control message containing at least one of a header information to be attached to the information data in the first physical network, and an information regarding a channel through which the information data is to be transferred; and

a commanding unit for commanding the receiving node to receive the information data which has the header information contained in said control message or which is transferred through the channel indicated by said control message, by using a protocol depending on the first physical network.

14. The device of claim 13, wherein said control message indicates the channel of the first physical network in a form of a broadcast type channel.

15. The device of claim 13, wherein said control message also contains an information regarding a communication resource required in reserving the communication path.

16. The device of claim 13, further comprising:

a collecting unit for collecting attribute information of transmitting and/or receiving nodes connected with the first physical network; and

a notifying unit for notifying said attribute information to another data transfer control device belonging to the second physical network and/or the transmitting node.

17. The device of claim 13, further comprising:

a notice receiving unit for receiving a notice regarding attribute information of transmitting and/or receiving nodes connected with the second physical network; and

a memory unit for storing said attribute information.

18. The device of claim 13, further comprising:

a message receiving unit for receiving a message containing an information capable of specifying the receiving node, from another data transfer control device belonging to the second physical network and/or the transmitting node;

wherein the commanding unit commands a receiving of the information data to the receiving node which is specified by said message.

19. The device of claim 13, further comprising:

a transmission unit for transmitting a message containing an information capable of specifying the transmitting node, to another data transfer control device belonging to the second physical network.

20. A data transfer control device for controlling transfer of information data to a receiving node connected with a first physical network from a transmitting node

connected with a second physical network, the data transfer control device being connected with the first physical network and comprising:

an establishing unit for establishing a channel in the first physical network;

a transfer unit for transferring the information data transferred through a communication path that is reserved for receiving the information data transmitted from the transmitting node, to the channel established by the establishing unit; and

a commanding unit for commanding the receiving node to receive the information data which is transferred through the channel established by the establishing unit, by using a protocol depending on the first physical network.

21. The device of claim 20, wherein said communication path is reserved by receiving a control message containing at least one of a header information attached to the information data and an information regarding a channel through which the information data is to be transferred, from a physical network different from the first physical network.

22. The device of claim 21, wherein said control message also contains an information regarding a communication resource required in reserving the communication path.

23. The device of claim 20, wherein the establishing unit establishes the channel of the first physical network in a form of a broadcast type channel.

24. The device of claim 20, further comprising:

a collecting unit for collecting attribute information of transmitting and/or receiving nodes connected with the first physical network; and

a notifying unit for notifying said attribute information to another data transfer control device belonging to the second physical network and/or the transmitting node.

25. The device of claim 20, further comprising:

a notice receiving unit for receiving a notice regarding attribute information of transmitting and/or receiving nodes connected with the second physical network; and

a memory unit for storing said attribute information.

26. The device of claim 20, further comprising:

a message receiving unit for receiving a control message containing an information capable of specifying the receiving node, from another data transfer control device belonging to the second physical network and/or the transmitting node;

wherein the commanding unit commands a receiving of the information data to the receiving node which is specified by said control message.

27. The device of claim 20, further comprising:

a transmission unit for transmitting a control message containing an information capable of specifying the transmitting node, to another data transfer control device belonging to the second physical network.

28. A data transfer control device for controlling transfer of information data from a transmitting node connected with a first physical network to a receiving node connected with a second physical network, the data transfer control device being connected with the second physical network and with a third physical network or the first physical network and comprising:

a first establishing unit for establishing a channel in the second physical network;

a second establishing unit for establishing a communication path between the data transfer control device and the first physical network or a transmitting node belonging to an upper logical network of the first physical network;

a commanding unit for commanding the receiving node to receive the information data transferred through the channel established by the first establishing unit, by using a protocol depending on the second physical network;

a conversion unit for converting a data format of the information data received through the communication path established by the second establishing unit, from a first data format depending on the third physical network or the first physical network and/or an upper logical network of the third physical network or the first physical network to a second data format depending on the second physical network; and

a transfer unit for transferring the information data with the data format converted by the conversion unit, to the channel established by the first establishing unit.

29. A data transfer control device for controlling transfer of information data from a transmitting node connected with a first physical network to a receiving node connected with a second physical network, the data transfer control device being connected with the second physical network and comprising:

a first establishing unit for establishing a channel in the second physical network;

a second establishing unit for establishing a communication path between the data transfer control device and the first physical network or a transmitting node belonging to an upper logical network of the first physical

network;

a commanding unit for commanding the receiving node to receive the information data transferred through the channel established by the first establishing unit, by using a protocol depending on the second physical network;

an encoding/decoding unit for encoding/decoding the information data received through the communication path established by the second establishing unit; and

a transfer unit for transferring the information data encoded/decoded by the encoding/decoding unit, to the channel established by the first establishing unit.

30. A data transfer control device for controlling transfer of information data to a receiving node connected with a first network from a transmitting node connected with a second network, the data transfer control device being connected with the first network and comprising:

an establishing unit for establishing a communication path for the information data transmitted from the transmitting node by using a signaling protocol of a network layer, the communication path reaching the data transfer control device from the transmitting node or another data transfer control device connected with the second network;

a receiving unit for receiving a control message containing an information regarding a channel through which the information data is to be transferred to the receiving node; and

a commanding unit for commanding the receiving node to receive the information data transferred through said channel, by using a protocol depending on the first network.

31. The device of claim 30, further comprising:

a transmission unit for transmitting a message requesting a conversion of a data format of the information data from a first data format depending on the network layer to a second data format of a protocol depending on the first network, to a node through which the information data passes before being received by the receiving node.

32. A data transfer control device for controlling transfer of information data from a transmitting node connected with a first network to a receiving node connected with a second network, the data transfer control device being connected with the first network and comprising:

an establishing unit for establishing a communication path for the information data transmitted from the transmitting node by using a signaling protocol of a network layer, the communication path reaching the receiving node or another data transfer control device connected with the second network;

a transmission unit for transmitting a control message containing an information regarding a channel through which the information data is to be transferred from the transmitting node; and

a commanding unit for commanding the transmitting node to transmit the information data to said channel, by using a protocol depending on the first network.

33. The device of claim 32, further comprising:

a message transmission unit for transmitting a message requesting a conversion of a data format of the information data from a first data format depending on the first network to a second data format depending on the network layer, to a node through which the information data passes before being received by the receiving node.

34. A relay device for transmitting a received data from one network to another network, comprising:

a first establishing unit for establishing a channel in said another network;

a second establishing unit for establishing a communication path which includes the channel established by the first establishing unit for data transferred from said one network to said another network by exchanging a signaling protocol of a network layer with a data transfer control device in said another network; and

a transmission unit for transmitting a control message containing an information regarding the channel to the data transfer control device, such that the data transfer control device commands a receiving node in said another network by using a protocol depending on said another network to receive the data transferred through the communication path established by the second establishing unit.

35. A relay device for transmitting a received data from one network to another network, comprising:

a reception unit for receiving a control message containing an information regarding a channel established in said one network from a data transfer control device in said one network, the data transfer control device commanding a transmitting node in said one network by using a protocol depending on said one network to transmit the data to the channel; and

an establishing unit for establishing a communication path which includes the channel for data transferred from said one network to said another network by exchanging a signaling protocol of a network layer with the data transfer control device.

36. A relay device for transmitting a received data from one network to another network, comprising:

a receiving unit for receiving a control message requesting a conversion of a data format of the received data from a first data format depending on said one network to a second data format depending on said another network; and

a transmission unit for converting the data format of the received data from said one network according to the control message received by the receiving unit, and transmitting converted data to said another network.

37. A relay device for transmitting a received data from one network to another network, comprising:

a receiving unit for receiving a control message requesting an encoding/decoding of the received data in a data format depending on said one network; and

a transmission unit for encoding/decoding the received data from said one network according to the control message received by the receiving unit, and transmitting encoded/decoded data to said another network.

38. A control device connected with a first physical network, comprising:

a collecting unit for collecting attribute information of transmitting and/or receiving nodes connected with the first physical network, according to a protocol depending on the first physical network; and

a notifying unit for notifying said attribute information to a device connected with a second physical network, according to a network layer protocol not depending on the first physical network.

39. The device of claim 38, further comprising:

a receiving unit for receiving a network layer protocol packet for controlling at least one of the transmitting and/or receiving nodes connected with the first physical network, from said device connected with the second physical network; and

a control unit for controlling said at least one of the transmitting and/or receiving nodes specified by the network layer protocol packet, according to a protocol depending on the first physical network.

40. A method for controlling transfer of information data to a receiving node connected with a first physical network from a transmitting node connected with a second physical network, at one data transfer control device connected with the second physical network, the method comprising the steps of:

(a) establishing a channel in the second physical network for transmitting the information data;

(b) reserving a communication path for transferring the information data transmitted through said channel to another data transfer control device belonging to the first physical network and/or the receiving node; and

(c) commanding the transmitting node to transmit the information data through said channel, by using a protocol depending on the second physical network.

41. The method of claim 40, wherein the step (b) transmits a control message commanding a network connection device which connects the second physical network and a third physical network, to register a correspondence between the channel in the second physical network and a header/channel information depending on the third physical network.

42. The method of claim 40, wherein the step (b) transmits a control message containing an address information for said another data transfer control device and/or the receiving node and at least one of a header information to be attached to the information data and an information regarding a channel through which the information data is to be transferred, to said another data transfer control device and/or the receiving node.

43. The method of claim 42, further comprising the step of:

(d) connecting said one data transfer control device to a third physical network or the first physical network; and

(e) transmitting the information data received through said channel in the second physical network to the third physical network or the first physical network, onto a channel indicated by said control message, or after attaching the header information contained in said control message.

44. The method of claim 42, further comprising the steps of:

(d) connecting said one data transfer control device to a third physical network or the first physical network; and

(e) converting a data format of data received through said channel, from a first data format depending on the second physical network to a second data format depending on the third physical network or the first physical network and/or an upper logical network of the third physical network or the first physical network; and

(f) transmitting said data with the data format converted by the step (d) as the information data to the third physical network or the first physical network, onto a channel indicated by said control message, or after attaching the header information contained in said control

message.

45. The method of claim 42, further comprising the steps of:

(d) encoding/decoding data received through said channel; and

(e) transmitting said data encoded/decoded by the step (d) as the information data, to a channel indicated by said control message, or after attaching a header information contained in said control message.

46. The method of claim 40, wherein the step (a) establishes said channel in a form of a broadcast type channel.

47. The method of claim 40, wherein the step (b) communicates an information regarding a communication resource required for the communication path, with said another data transfer control device and/or the receiving node.

48. The method of claim 40, further comprising the steps of:

(d) collecting attribute information of transmitting and/or receiving nodes connected with the second physical network; and

(e) notifying said attribute information to said another data transfer control device and/or the receiving node.

49. The method of claim 40, further comprising the steps of:

(d) receiving a notice regarding attribute information of transmitting and/or receiving nodes connected with the first physical network; and

(e) storing said attribute information in a memory of said

one data transfer control device.

50. The method of claim 40, further comprising the step of:

(d) receiving a control message containing an information capable of specifying the transmitting node, from said another data transfer control device and/or the receiving node;

wherein the step (c) commands a transmission of the information data to the transmitting node which is specified by said control message.

51. The method of claim 40, wherein the step (b) transmits a control message containing an information capable of specifying the receiving node, to said another data transfer control device.

52. A method for controlling transfer of information data to a receiving node connected with a first physical network from a transmitting node connected with a second physical network, at one data transfer control device connected with the first physical network, the method comprising the steps of:

(a) receiving a control message to be used in reserving a communication path reaching said one data transfer control device, said control message containing at least one of a header information to be attached to the information data in the first physical network, and an information regarding a channel through which the information data is to be transferred; and

(b) commanding the receiving node to receive the information data which has the header information contained in said control message or which is transferred through the channel indicated by said control message, by using a protocol depending on the first physical network.

53. The method of claim 52, wherein said control message indicates the channel of the first physical network in a form of a broadcast type channel.

54. The method of claim 52, wherein said control message also contains an information regarding a communication resource required in reserving the communication path.

55. The method of claim 52, further comprising the steps of:

(c) collecting attribute information of transmitting and/or receiving nodes connected with the first physical network; and

(d) notifying said attribute information to another data transfer control device belonging to the second physical network and/or the transmitting node.

56. The method of claim 52, further comprising the steps of:

(c) receiving a notice regarding attribute information of transmitting and/or receiving nodes connected with the second physical network; and

(d) storing said attribute information in a memory of said one data transfer control device.

57. The method of claim 52, further comprising the step of:

(c) receiving a message containing an information capable of specifying the receiving node, from another data transfer control device belonging to the second physical network and/or the transmitting node;

wherein the step (b) commands a receiving of the information data to the receiving node which is specified by said message.

58. The method of claim 52, further comprising the step of:

(c) transmitting a message containing an information capable of specifying the transmitting node, to another data transfer control device belonging to the second physical network.

59. A method for controlling transfer of information data to a receiving node connected with a first physical network from a transmitting node connected with a second physical network, at one data transfer control device connected with the first physical network, the method comprising the steps of:

(a) establishing a channel in the first physical network;

(b) transferring the information data transferred through a communication path that is reserved for receiving the information data transmitted from the transmitting node, to the channel established by the step (a); and

(c) commanding the receiving node to receive the information data which is transferred through the channel established by the step (a), by using a protocol depending on the first physical network.

60. The method of claim 59, wherein said communication path is reserved by receiving a control message containing at least one of a header information attached to the information data and an information regarding a channel through which the information data is to be transferred, from a physical network different from the first physical network.

61. The method of claim 60, wherein said control message also contains an information regarding a communication resource required in reserving the communication path.

62. The method of claim 59, wherein the step (a) establishes the channel of the first physical network in a form of a broadcast type channel.

63. The method of claim 59, further comprising the steps of:

(d) collecting attribute information of transmitting and/or receiving nodes connected with the first physical network; and

(e) notifying said attribute information to another data transfer control device belonging to the second physical network and/or the transmitting node.

64. The method of claim 59, further comprising the steps of:

(d) receiving a notice regarding attribute information of transmitting and/or receiving nodes connected with the second physical network; and

(e) storing said attribute information in a memory of said one data transfer control device.

65. The method of claim 59, further comprising the step of:

(d) receiving a control message containing an information capable of specifying the receiving node, from another data transfer control device belonging to the second physical network and/or the transmitting node;

wherein the step (c) commands a receiving of the information data to the receiving node which is specified by said control message.

66. The method of claim 59, further comprising the step of:

(d) transmitting a control message containing an

information capable of specifying the transmitting node, to another data transfer control device belonging to the second physical network.

67. A method for controlling transfer of information data from a transmitting node connected with a first physical network to a receiving node connected with a second physical network, at one data transfer control device connected with the second physical network and with a third physical network or the first physical network, the method comprising the steps of:

(a) establishing a channel in the second physical network;

(b) establishing a communication path between said one data transfer control device and the first physical network or a transmitting node belonging to an upper logical network of the first physical network;

(c) commanding the receiving node to receive the information data transferred through the channel established by the step (a), by using a protocol depending on the second physical network;

(d) converting a data format of the information data received through the communication path established by the step (b), from a first data format depending on the third physical network or the first physical network and/or an upper logical network of the third physical network or the first physical network to a second data format depending on the second physical network; and

(e) transferring the information data with the data format converted by the step (d), to the channel established by the step (a).

68. A method for controlling transfer of information data from a transmitting node connected with a first physical network to a receiving node connected with a second physical network, at one data transfer control device

connected with the second physical network, the method comprising the steps of:

(a) establishing a channel in the second physical network;

(b) establishing a communication path between said one data transfer control device and the first physical network or a transmitting node belonging to an upper logical network of the first physical network;

(c) commanding the receiving node to receive the information data transferred through the channel established by the step (a), by using a protocol depending on the second physical network;

(d) encoding/decoding the information data received through the communication path established by the step (b); and

(e) transferring the information data encoded/decoded by the step (d), to the channel established by the step (a).

69. A method for controlling transfer of information data to a receiving node connected with a first network from a transmitting node connected with a second network, at one data transfer control device connected with the first network, the method comprising the steps of:

(a) establishing a communication path for the information data transmitted from the transmitting node by using a signaling protocol of a network layer, the communication path reaching said one data transfer control device from the transmitting node or another data transfer control device connected with the second network;

(b) receiving a control message containing an information regarding a channel through which the information data is to be transferred to the receiving node; and

(c) commanding the receiving node to receive the information data transferred through said channel, by using a protocol depending on the first network.

70. The method of claim 69, further comprising the step of:

(d) transmitting a message requesting a conversion of a data format of the information data from a first data format depending on the network layer to a second data format of a protocol depending on the first network, to a node through which the information data passes before being received by the receiving node.

71. A method for controlling transfer of information data from a transmitting node connected with a first network to a receiving node connected with a second network, at one data transfer control device connected with the first network, the method comprising the steps of:

(a) establishing a communication path for the information data transmitted from the transmitting node by using a signaling protocol of a network layer, the communication path reaching the receiving node or another data transfer control device connected with the second network;

(b) transmitting a control message containing an information regarding a channel through which the information data is to be transferred from the transmitting node; and

(c) commanding the transmitting node to transmit the information data to said channel, by using a protocol depending on the first network.

72. The method of claim 71, further comprising the step of:

(d) transmitting a message requesting a conversion of a data format of the information data from a first data format depending on the first network to a second data format depending on the network layer, to a node through which the information data passes before being received by the receiving node.

73. A method for relaying data by transmitting a received data from one network to another network, comprising the steps of:

(a) establishing a channel in said another network;

(b) establishing a communication path which includes the channel established by the step (a) for data transferred from said one network to said another network by exchanging a signaling protocol of a network layer with a data transfer control device in said another network; and

(c) transmitting a control message containing an information regarding the channel to the data transfer control device, such that the data transfer control device commands a receiving node in said another network by using a protocol depending on said another network to receive the data transferred through the communication path established by the step (b).

74. A method for relaying data by transmitting a received data from one network to another network, comprising the steps of:

(a) receiving a control message containing an information regarding a channel established in said one network from a data transfer control device in said one network, the data transfer control device commanding a transmitting node in said one network by using a protocol depending on said one network to transmit the data to the channel; and

(b) establishing a communication path which includes the channel for data transferred from said one network to said another network by exchanging a signaling protocol of a network layer with the data transfer control device.

75. A method for relaying data by transmitting a received data from one network to another network, comprising the steps of:

(a) receiving a control message requesting a conversion of a data format of the received data from a first data format depending on said one network to a second data format depending on said another network; and

(b) converting the data format of the received data from said one network according to the control message received by the steo (a), and transmitting converted data to said another network.

76. A method for relaying data by transmitting a received data from one network to another network, comprising the steps of:

(a) receiving a control message requesting an encoding/decoding of the received data in a data format depending on said one network; and

(b) encoding/decoding the received data from said one network according to the control message received by the step (a), and transmitting encoded/decoded data to said another network.

77. A method for operating a control device connected with a first physical network, comprising the steps of:

(a) collecting attribute information of transmitting and/or receiving nodes connected with the first physical network, according to a protocol depending on the first physical network,at the control device; and

(b) notifying said attribute information from the control device to a device connected with a second physical network, according to a network layer protocol not depending on the first physical network.

78. The method of claim 77, further comprising the steps of:

(c) receiving a network layer protocol packet for controlling at least one of the transmitting and/or

receiving nodes connected with the first physical network, from said device connected with the second physical network, at the control device; and

(d) controlling said at least one of the transmitting and/or receiving nodes specified by the network layer protocol packet, according to a protocol depending on the first physical network, at the control device.

79. A data transfer control device for controlling transfer of information data to a receiving node connected with a first physical network from a transmitting node connected with a second physical network, the data transfer control device being connected with the first physical network and comprising:

a control unit for controlling transfer of the information data transferred from a communication path which is reserved for receiving of the information data transmitted from the transmitting node such that the information data are transferred to a channel in the first physical network; and

a commanding unit for commanding the receiving node to receive the information data transferred through the channel.

80. A communication device connected with a network of broadcast type, comprising:

a commanding unit for notifying a second communication device connected with said network a first identification information identifying communication resource of said network for the second communication device, and a second identification information identifying a data flow to be received in a network layer, the second communication device having no network layer address or a network layer address different from a destination network layer address of the data flow, so as to command the second communication

device to receive the data flow transferred by using the communication resource; and

a request unit for requesting a transfer of the data flow in the network layer to a third communication device.

81. The communication device of claim 80, further comprising:

a reserving unit for reserving the communication resource for receiving of the data flow in the network layer by the second communication device.

82. The communication device of claim 80, further comprising:

a processing unit for carrying out a processing in an upper layer of a transport layer with respect to the third communication device.

83. The communication device of claim 80, further comprising:

a transfer unit for transferring the data flow to the second communication device by using the communication resource.

84. A communication device connected with a network of broadcast type, comprising:

a first receiving unit for receiving a notification of a correspondence between a first identification information identifying a specified data flow in a network layer and a second identification information identifying communication resource of said network to be used for transferring the data flow notified from another communication device connected with said network; and

a second receiving unit for temporarily receiving the specified data flow of the network layer by using the communication resource, where a destination network layer

address of the data flow is a network address to be used for receiving of the data flow which is temporarily assigned to the communication device.

85. A method for controlling transfer of information data to a receiving node connected with a first physical network from a transmitting node connected with a second physical network, at a data transfer control device connected with the first physical network, the method comprising the steps of:

controlling transfer of the information data transferred from a communication path which is reserved for receiving of the information data transmitted from the transmitting node such that the information data are transferred to a channel in the first physical network; and

commanding the receiving node to receive the information data transferred through the channel.

86. A method for controlling transfer of information data at a first communication device connected with a network of broadcast type, comprising the steps of:

notifying a second communication device connected with said network a first identification information identifying communication resource of said network for the second communication device, and a second identification information identifying a data flow to be received in a network layer, the second communication device having no network layer address or a network layer address different from a destination network layer address of the data flow, so as to command the second communication device to receive the data flow transferred by using the communication resource; and

requesting a transfer of the data flow in the network layer to a third communication device.

87. The method of claim 86, further comprising the step of:

reserving the communication resource for receiving of the data flow in the network layer by the second communication device.

88. The method of claim 86, further comprising the step of:

carrying out a processing in an upper layer of a transport layer with respect to the third communication device.

89. The method of claim 86, further comprising the step of:

transferring the data flow to the second communication device by using the communication resource.

90. A method for receiving information data at a communication device connected with a network of broadcast type, comprising the steps of:

receiving a notification of a correspondence between a first identification information identifying a specified data flow in a network layer and a second identification information identifying communication resource of said network to be used for transferring the data flow notified from another communication device connected with said network; and

temporarily receiving the specified data flow of the network layer by using the communication resource, where a destination network layer address of the data flow is a network address to be used for receiving of the data flow which is temporarily assigned to the communication device.

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